

Fig. 18

Example 7 = 355 nm Laser											
Step 1 = 12 μm Cu											
Step 2 = Thermount E220 from Nelco											
Via Size (μm)	Step	Speed (mm/sec)	Rep Rate (kHz)	Power (mW)	Bite Size (μm)	# of passes	Eff. spot (μm)	Spiral Params.			focus (mil)
12	1	4.8	1.1	400	4.36	.1	15	id	rev	pitch	65
140	2	5.13	0.267	100	19.36	2	15	31	1	29	65

Fig. 19

Example 8 = 355 nm Laser											
Step 1 = 15 μm Cu											
Step 2 = 50 μm Speedboard N (PTFE)											
Via Size (μm)	Step	Speed (mm/sec)	Rep Rate (kHz)	Power (mW)	Bite Size (μm)	# of passes	Eff. spot (μm)	Spiral Params.			focus (mil)
	1	5.75	1.5	550	3.84	1	5	id	rev	pitch	75
	2	5.75	5	700	1.15	1	5	50	1	32.5	150

Fig. 20

Example 9 = 266 nm Laser											
Step 1 = 15 μm Cu											
Step 2 = 50 μm Duramid Aramid Reinforced Epoxy											
										Spiral Params.	
Via Size (μm)	Step	Speed (mm/sec)	Rep Rate (kHz)	Power (mW)	Bite Size (μm)	# of passes	Eff. spot (μm)	id	rev	pitch	focus (mil)
160	1	5	5	150	1	1	35	10	2	20	0
160	2	4.8	3.2	300	1.5	1	1				0

Fig. 21

Example 10 = 266 nm Laser											
Step 1 = 15 μm Cu											
Step 2 = 50 μm Gore Speedboard N (PTFE)											
										Spiral Params.	
Via Size (μm)	Step	Speed (mm/sec)	Rep Rate (kHz)	Power (mW)	Bite Size (μm)	# of passes	Eff. spot (μm)	id	rev	pitch	focus (mil)
160	1	5	5	150	1	1	35	10	2	20	0
160	2	4.5	3.75	305	1.2	1	1				0